

## ABSTRACT OF THE DISCLOSURE

Disclosed herein is a receiver for down-conversion of a dual band. The receiver can down convert radio frequency signals of two different bands into a desired IF signal using only one voltage controlled oscillator(VCO), by dividing the output of the VCO into a predetermined ratio with a divider. The VCO outputs a desired oscillating frequency for conversion of the first-band RF signal into the IF signal, and the divider divides the desired oscillating frequency in a predetermined ratio to output a frequency for conversion of the second-band RF signal into the IF signal. Thus, the receiver can be formed on one silicon substrate.